



ANADROMOUS FISH RESTORATION PROGRAM

Channel Restoration

Tuolumne River Mining Reach: 7/11 Segment



-  **Restoration 90% complete**
-  **1.2 miles of river rehabilitated**
-  **Floodplain restoration**
-  **Spawning gravel added**
-  **Mining pit isolation**
-  **Anti-stranding channels**
-  **Re-vegetation and monitoring pending**



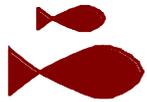
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Channel Restoration

Merced River Wing Dam Gravel Study



- **Determine if wing dam construction can augment spawning gravel in Merced River**
- **Used radio-telemetry and painted rocks to track gravel movement**
- **Waiting for results from higher flows**



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Research

Lower Calaveras River salmonid life-history limiting factor analysis

- **Ongoing field work to determine salmonid occurrence and distribution**
- **Reduced flows downstream of New Hogan Dam limit adult and juvenile passage**
- **Project will reveal the status and carrying capacity for salmonid runs**



Redd and juvenile surveys below New Hogan Dam (April 2002).



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Research

The economic impact on Stanislaus County of public land acquisitions and conservation easements on floodplain lands along the lower Tuolumne and San Joaquin rivers





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Research

Stanislaus River: Caswell Rotary Screw Trap



- Documents juvenile salmonid migration and abundance trends
- Documents juvenile Chinook salmon response to flow
- Found variable juvenile life history patterns
- Years 1 and 2 trends complete



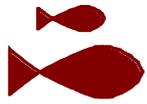
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Habitat Modeling

Merced River: Robinson Reach PHABSIM/2D Post-Restoration Modeling



- **Assess restoration benefits at Robinson Reach using PHABSIM and 2D modeling**
- **Pre - project and first year post-project data collection complete**
- **Data analysis in progress**



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Habitat Modeling

Merced River Temperature Modeling



- **Model reservoir operations in the Merced River to optimize temperatures for Chinook salmon**
- **Compiled physical specifications, operating strategies, and biological monitoring activities**